U. S. ARMY ENGINEER DIVISION. NEW ENGLAND
CORPS OF ENGINEERS
424 TRAPELO ROAD
WALTHAM. MASS. 02154

ADDRESS REPLY TO
DIVISION ENGINEER

REFER TO FILE NO. NEDED-R

15 February 1966

SUBJECT: Survey (Review of Reports) on Cuttyhunk Harbor, Gosnold, Massachusetts

TO: Chief of Engineers
ATTN: ENGCW-PD

1. Syllabus: The Division Engineer finds that modification of the existing Federal navigation project in Cuttyhunk Harbor, Massachusetts is not necessary at this time. Local interests requested improvement of existing harbor facilities to provide more anchorage area, and to protect the entrance channel. These improvements are provided for by maintenance work on the existing project and through construction of a marina by the Commonwealth of Massachusetts.

2. Authority: This report is submitted in compliance with an item in Section 7 of the River and Harbor Act approved 24 July 1946, which reads as follows: "Sec. 7. The Secretary of War is hereby authorized and directed to cause preliminary examinations and surveys to be made at the following localities - - - - - - - - Cuttyhunk Harbor, Massachusetts."

3. A preliminary examination of Cuttyhunk Harbor was submitted on 14 July 1947. The report recommended a survey be made to determine the cost and justification of a suitable modification of the existing project to provide more anchorage area, and to protect the entrance channel.

4. Purpose and Description: This study was authorized on 23 October 1947 by the Chief of Engineers, to determine in detail the need for modification of the existing Federal navigation project in Cuttyhunk Harbor.

5. Cuttyhunk Island is located 14 miles south of New Bedford Harbor and is the most westerly of the Elizabeth Islands which extend southwesterly from Woods Hole, Massachusetts. The islands separate Buzzards Bay on the north from Vineyard Sound on the south. Cuttyhunk Harbor is located at the eastern end of the island, opens into Buzzards Bay and consists of an outer and inner section. The outer harbor connects with Vineyard Sound through Canapitsit Channel which lies between the islands of Cuttyhunk and Nashawena. The inner harbor, or Cuttyhunk Pond, covers an area of about 105 acres with depths ranging from one to 10 feet below mean low water. The mean tidal range is 3.4 feet and the spring range 4.2 feet.

6. Cuttyhunk Island, together with the other Elizabeth Islands, forms the Town of Gosnold. The island is the principal population center of the town, the other islands being practically uninhabited. The permanent population of the town was 66 in 1960. The population is greatly increased during the summer by tourists. The principal occupation of the area includes fishing, lobstering, and providing services for summer visitors including a large number of recreational boat owners. Cuttyhunk Harbor is used as a stop-over for boats cruising along the coast from Long Island Sound to the Cape Cod Canal. Present harbor facilities provide nearly 1000 feet of docking space. There are two public wharves, a marina, a yachtclub, two privately-owned piers and a Coast Guard boat-house and dock.

7. In the period 1906-1935 the Commonwealth of Massachusetts provided the first improvements to Cuttyhunk Harbor by constructing a stone and concrete jetty on each side of the entrance, and dredging and maintaining an entrance channel and turning basin. Total expenditure for these improvements was $94,236, of which $10,300 was contributed by the Town of Gosnold. In addition, the Town has constructed and maintained two public wharves at a cost of about $12,000.

8. Prior Reports and Existing Project: The only report of record was a favorable preliminary examination and survey report submitted to Congress, 12 August 1936, and published as House Document No. 81, 75th Congress, 1st Session. This report formed the basis for the existing project.

9. The existing project was authorized by the River and Harbor Act of 26 August 1937. It provides for an entrance channel generally 75 feet wide and 10 feet deep at mean low water, from the outer harbor into Cuttyhunk Pond, a distance of about 3500 feet; an anchorage in the inner harbor 10 feet deep, 900 feet long, and 800 feet wide; and for maintenance of the entrance jetties which had been constructed by the Commonwealth of Massachusetts.

10. The existing project was completed in 1939 at a cost of $38,811.23, of which 30 percent or $11,643.37 was contributed by local interests. All other requirements of local cooperation have been fully complied with. Federal cost of maintenance of the project as of 30 June 1964 totals $469,960. In addition, the Commonwealth of Massachusetts has expended about $101,820 as its share for maintenance, by placing material dredged from the entrance channel onto Canapitsit barrier beach, to help protect the harbor entrance.

11. Desired Improvements: A public hearing was held at Cuttyhunk on 20 November 1946 to determine the desires of local residents relative to harbor improvement. At that time the Selectmen of the Town of Gosnold requested that the existing anchorage area be enlarged and that a small anchorage be dredged west of the town wharf, at the head of the navigation channel. In addition, they requested that some means be found to restore and to maintain Canapitist Beach, connecting the main island with Canapitsit Point, in order to prevent the entrance channel from shoaling and to give access to the United States Coast Guard installation on Canapitsit Point. More recently these requests have been reiterated.

12. Plan of Improvement: Investigation revealed that all improvements requested by local interests at the public hearing could be provided through maintenance of the existing Federal navigation project as noted in Paragraph 14 and the construction of marina facilities by the State adjacent to Fishermen's Wharf.

13. As a result of requests made by local officials, the Commonwealth of Massachusetts has extended Fishermen's

Wharf at the head of the navigation channel and constructed a marina adjacent to the wharf, consisting of a main pier 264 feet long and two finger piers 180 feet long.

14. A study was made to determine the most efficient and economical means of maintaining the existing entrance channel. Results of this study indicated that a stone dike 2,600 feet long on Canapitsit Beach together with a stone apron at the seaward toe of the dike would provide the necessary repairs to the beach, to protect the entrance channel from the south. The study also indicated that rebuilding and shoreward extension of the south entrance jetty together with construction of a stone dike, 1200 feet long, at Copicut Neck Beach are required in order to maintain the harbor of refuge. Rehabilitation of the project was initiated in August 1964. The first phase consisted of constructing 1,300 feet of dike at the east end of Canapitsit Beach and 600 feet of dike at the south end of Copicut Neck Beach. This phase of the work was completed in 1965, the remainder of the rehabilitation work will be performed in the near future.

15. Conclusions: At the time of the public hearing, local interests expressed a desire for increased anchorage area within Cuttyhunk Harbor, as the existing 16.5 acre anchorage had become overcrowded. This situation has been eliminated by the recently built State marina. It appears that future mooring facilities for small craft in the harbor may be obtained more economically through development of similar marinas, suitably located and equipped with modern conveniences.

16. Engineering and economic studies made to determine the most feasible solution to the problem of maintaining the entrance channel to Cuttyhunk Harbor indicated that protection of the Canapitsit Beach barrier and reconstruction of the south entrance jetty were essential. Furthermore, in order to protect and maintain the Federal anchorage in the inner harbor from the northwest, a stone dike with a riprap apron is required at Copicut Neck Beach. It is concluded that proper maintenance of the existing Federal project and construction of additional marina facilities to accommodate future recreational boating activity would meet present and reasonably prospective needs of navigation.

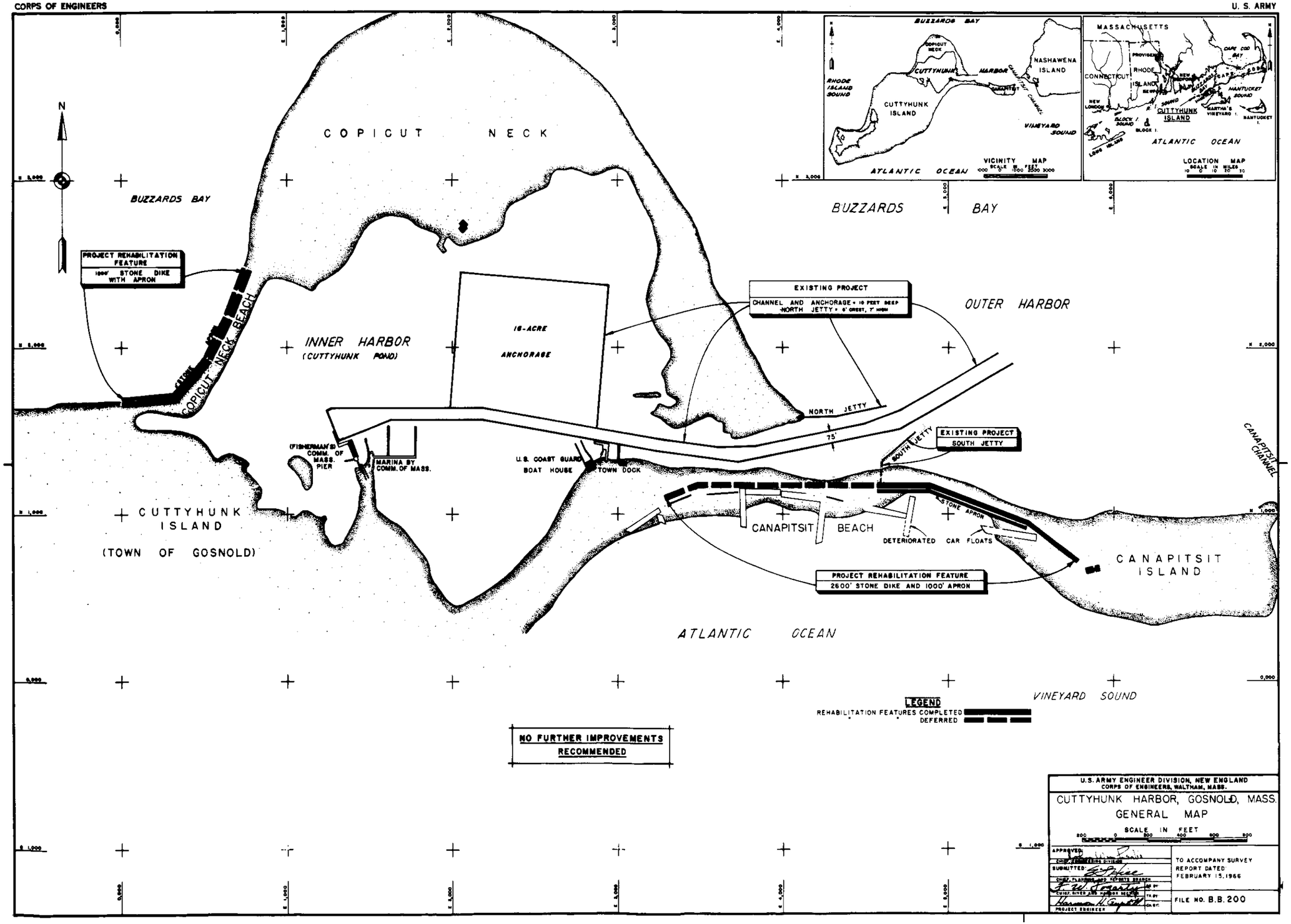
17. Recommendation: The Division Engineer recommends no modification of the existing navigation project for Cuttyhunk Harbor, Massachusetts at this time.

Incl
Map

REMI O. RENIER
Colonel, Corps of Engineers
Acting Division Engineer

CORPS OF ENGINEERS

U. S. ARMY



U.S. ARMY ENGINEER DIVISION, NEW ENGLAND
CORPS OF ENGINEERS, WALTHAM, MASS.

CUTTYHUNK HARBOR, GOSNOLD, MASS.
GENERAL MAP

SCALE IN FEET

APPROVED
CHIEF, ENGINEERING DIVISION

SUBMITTED
CHIEF, PLANNING AND REPORTS BRANCH

CHIEF, RIVER AND HARBOR SECTION

PROJECT ENGINEER

TO ACCOMPANY SURVEY REPORT DATED FEBRUARY 15, 1956

FILE NO. B.B. 200

CUTTYHUNK HARBOR, MASS.
Information Called for by
Senate Resolution 148, 85th Congress
Adopted 28 January 1958

1. This study considered the adequacy of the present Federal navigation project at Cuttyhunk Harbor, Gosnold, Massachusetts for commercial fishing vessels and recreational craft.

2. A public hearing was held at Cuttyhunk on 20 November 1946. Town officials requested improvement to consist of (1) restoring the existing channel to project dimensions; (2) expanding the existing anchorage; (3) protective works at Canapitsit barrier beach south of the harbor entrance to prevent excessive shoaling of the channel and to protect the outer harbor from southerly exposure.

3. The harbor is used by a small fishing fleet, local and transient recreational boats, mail and freight carriers from the mainland, and serves frequently as a harbor of refuge. Annual freight traffic during the 5-year period through 1963 averaged 580 tons. There has been a sharp increase in the number of recreational boats visiting the harbor in recent years particularly during deep sea fishing tournaments. Since the public hearing, the Commonwealth of Massachusetts has constructed a marina adjacent to the turning basin at the head of the channel that contains enough berths to take care of immediate and near future needs for mooring space within the harbor. The location of undeveloped shorefront in the harbor indicates that marina-type berthing areas could economically satisfy prospective needs for additional mooring space.

4. Rehabilitation of the existing Federal project was initiated in August 1964 in order to preserve the natural barrier beaches protecting the harbor and reduce shoaling. The first phase of this work was completed in 1965. The completed work consisted of constructing two stone dikes and aprons, one 1,300 feet long at the east end of Canapitsit Beach to protect the entrance channel from the south, and the second 600 feet long at the south end of Copicut Neck Beach to protect the inner

harbor. Additional dike construction and jetty repair will be completed under the existing maintenance program in the near future.

5. The requests for navigation improvements made at the public hearing and repeated by Town officials since that date, are provided for by maintenance of the existing project and by the construction of marina facilities. It is therefore considered that the existing project is adequate for the present and future navigation needs in Cuttyhunk Harbor.